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09/967,065	09/28/2001	Abhay A. Dharmadhikari	42390.P11810	4898

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BLAKELY SOKOLOFF TAYLOR & ZAFMAN  
1279 OAKMEAD PARKWAY  
SUNNYVALE, CA 94085-4040

EXAMINER
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LIN, WEN TAI

ART UNIT	PAPER NUMBER
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2154

MAIL DATE	DELIVERY MODE
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11/07/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

09/967,065

Applicant(s)

DHARMADHIKARI ET AL.

Examiner

Wen-Tai Lin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 9/21/2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. Claims 1 and 3-33 are presented for examination.
2. The text of those sections of Title 35, USC code not included in this action can be found in the prior Office Action.

### ***Claim Rejections - 35 USC § 102***

3. Claims 1, 3-6, 8, 12-13, 15-28 and 30 are rejected under 35 U.S.C. 102(e) as being anticipated by Whitmore et al. [U.S. PGPub 20060203804].
4. Whitmore was cited in the previous office action.
5. As to claim 1, Whitmore teaches the invention as claimed including: a method for selecting an interface [e.g., 20, 56, 200, Fig. 38] for a network node [e.g., 13, Fig.38] to communicate with a network [e.g., LAN 10, Fig. 38], the method comprising:
  - storing at the network node a policy specifying user preferences of a user at the network node [e.g., paragraphs 174 and 191; i.e., a user may specify preferred routes via user configuration interface];
  - monitoring at the network node a characteristic of an interface for communicating with the network [paragraphs 174 and 270; e.g., monitoring the network availability];

selecting at the network node one of a plurality of interfaces [e.g., 20, 56, 200, Fig. 38; note that each of the VPN 56 of Fig. 38 together with router 200 form an interface between Terminal 52 and network LAN 10], each interface for the network node to communicate with the network, the selecting by matching the user preferences to the monitored interface characteristic [e.g., paragraph 192: a user's preferred network interface or network speed must be matched to the monitored network availability]; and modifying a routing table entry associated with the selected interface, wherein the routing table entry includes a metric field and further wherein modifying the routing table entry includes modifying the metric field [e.g., paragraphs 192, 224, 240].

6. As to claims 3-4, Whitmore teaches that the routing entry includes a metric field for adjusting the priority associated with the selected network interface [e.g., paragraphs 198, 203 and 205].

7. As to claim 5, Whitmore further teaches that modifying the routing table includes deleting a routing table entry not associated with the selected interface to communicate with the network [e.g., paragraph 169].

8. As to claim 6, Whitmore further teaches that storing a policy includes storing a policy specifying a network preference based on a cost of using a network communicably coupled to an interface in the plurality of interfaces [paragraphs 197-198].

9. As to claim 8, Whitmore further teaches that receiving a policy includes receiving a policy specifying a network preference based on the signal strength of the network interface [e.g., paragraphs 195 and 200].

10. As to claims 12-13, Whitmore further teaches that the policy is received from a user interface, which is received from a configuration file [e.g., paragraph 191].

11. As to claim 15, since the features of this claim can also be found in claims 1 and 3-6, it is rejected for the same reasons set forth in the rejection of claims 1 and 3-6 above.

12. As to claims 16-20, Whitmore further teaches that the system further comprising a link monitor, which includes a wired link management component, operable to notify the policy manager of changes in a link status of a network interface from the plurality of network interfaces [e.g., 54, Fig.25; 210, Fig. 30; paragraphs 148 and 174], wherein the link monitor includes a wired link management component [e.g., 102, Fig.25] and a wireless link management component [e.g., 106, Fig. 25], wherein the link monitor notifies the policy manager of the link status change upon insertion or deletion of a network interface [e.g., paragraph 169], wherein the link monitor notifies the policy manager of the link status change when a signal strength associated with the network interface crosses a predetermined threshold value [paragraphs 195 and 200].

13. As to claim 21, Whitmore further teaches that the link monitor notifies the policy manager of the link status change upon a link roam [e.g., paragraphs 204 and 240].

14. As to claim 22, Whitmore teaches that the system further comprises a routing table interface operable to provide a set of functions to modify the routing table [e.g., paragraph 234].

15. As to claims 23-28 and 30, since the features of these claims can also be found in claims 1, 3-6 and 8, they are rejected for the same reasons set forth in the rejection of claims 1, 3-6 and 8 above.

***Claim Rejections - 35 USC § 103***

16. Claims 7, 9-11, 14, 29 and 31-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Whitmore et al.(hereafter "Whitmore") [U.S. PGPub 20060203804], as applied to claims 1, 3-6, 8, 12-13, 15-28 and 30 above.

17. As to claim 7, Whitmore does not specifically teach that storing a policy includes storing a policy specifying a network preference based on battery consumption associated with a network communicably coupled to the network interface.

However, it is well known in the art of wireless communication that battery consumption is an important fact in a system's operation cost. It would have been

obvious to one of ordinary skill in the art to include battery consumption in specifying Whitmore's network preference because it enables a user to select an energy efficient interface [paragraph 197].

18. As to claims 9-10, Whitmore does not specifically teach that storing a policy includes storing a policy specifying a network preference based on a latency value or bandwidth associated with a network communicably coupled to an interface in the plurality of interfaces.

However, Whitmore teaches that network speed is one of the metrics used for routing decision [e.g., paragraph 192]. It would have been obvious to one of ordinary skill in the art to include the latency value and bandwidth associated with a network communicably coupled to the network interface in the network preference because the latency and bandwidth play an important role in determining the network's overall speed.

19. As to claim 11, Whitmore does not specifically teach that storing a policy includes storing a policy specifying a network preference based on a reliability value associated with a network communicably coupled to the preferred network interface.

However, Whitmore teaches providing redundancy of certain part to enhance reliability of the network [e.g., paragraphs 106 and 164]. It would have been obvious to one of ordinary skill in the art to include the reliability value associated with a network communicably coupled to the network interface in specifying the network preference

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because reliability is a well-known factor in providing successful communication services.

20. As to claim 14, Whitmore does not specifically teach that the policy is received from an environment variable.

However, it is well known in the art that environment variables can be defined in a configuration file and get picked up at the time system is initialized.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to specify Whitmore's policy in an environment variable because it provides a convenient option for modifying a policy without going through the configuration file entry.

21. As to claims 29 and 31-33, since the features of these claims can also be found in claims 1, 7, 9-11 and 23, they are rejected for the same reasons set forth in the rejection of claims 1, 7, 9-11 and 23 above.

22. Applicant's arguments with respect to claims 1 and 3-33 on 9/21/07 have been considered but they are not deemed to be persuasive.

In the remarks Applicant argues that Whitmore does not teach selecting from an interface from a plurality of interfaces for a network node to communicate with that network because, for instance, each of Whitmore's network driver in Fig. 31 is connected to a wireless network (see 56, Fig.38).

23. The examiner respectfully disagrees. First, there is no specific definition as to what constitutes an "interface" or "network interface". Thus it has been broadly interpreted as "circuits interfacing between a network node and a network." For example, based on Fig. 38, the interface between mobile computer 52 and LAN 10 has a plurality of interfaces, each comprising a mobile router 200, a wireless VNP network 56, and a port of the host server 20. Furthermore, Applicant's specification also has a similar situation as shown in Fig. 1, wherein the wireless interface 118 inherently comprises a wireless channel or network because the free-air propagation needs at least two communication interfaces, one interfaced to the wireless link manager 112 and the other interfaces to the target network (e.g., Bluetooth, see page 4, lines 27-30).

For at least the foregoing reasons, it is submitted that the prior art of record reads on the claims.

24. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

25. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

### ***Conclusion***

**Examiner note:** Examiner has cited particular columns and line numbers in the references as applied to the claims above for the convenience of the applicant.

Although the specified citations are representative of the teachings of the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wen-Tai Lin whose telephone number is (571)272-3969. The examiner can normally be reached on Monday-Friday(8:00-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached on (571) 272-1915. The fax phone numbers for the organization where this application or proceeding is assigned are as follows:

(571) 273-8300 for official communications; and

(571) 273-3969 for status inquiries draft communication.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Wen-Tai Lin

November 4, 2007

Wen-Tai Lin  
11/4/07